



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,709	01/22/2004	Takasi Furusawa	5702-00068	5208

7590

03/22/2006

Laurence C. Begin
PMB 403
510 HIGHLAND AVENUE
MIFORD, MI 48381

EXAMINER

DUNN, DAVID R

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/762,709		FURUSAWA ET AL.	
	Examiner		Art Unit	
	David Dunn		3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on January 9, 2006, PROSECUTION IS HEREBY REOPENED. Prosecution in this application has been reopened to restate the prior 102 rejection. After further review, it was determined that the 102 rejection was improperly dismissed in the Advisory Action of July 26, 2005, and that the rejection should be maintained.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



Paul Dickson.

PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 6000

Terminal Disclaimer

2. The terminal disclaimer filed on August 8, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent 6,685,223 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwuchow (DE 19612581; cited in IDS).

Schwuchow discloses a method of inflating an airbag comprising: igniting a gas generant composition (9; see Figure 1) within a gas generator (8) to form combustion products; at least substantially filtering (10 - Brennkammerfilter = Combustion Chamber Filter); humidifying (12) the filtered combustion products to form humidified filtered combustion products (see also attached Abstract translation); and routing the humidified filtered combustion products into the airbag.

Regarding claim 6, the humidified filtered combustion products would inherently lubricate the airbag opening and a portion of an interior of the airbag, thereby reducing resistance

of the airbag to inflation and correspondingly reducing the amount of pressure required to inflate the airbag.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwuchow alone.

Schwuchow is discussed above but does not clearly show the ratio of water to gas generant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schwuchow to have any desired ration of moles of water per mole of gas generant, such as 1.0 in order to provide an optimal amount of hydration to cool the combustion gases.

7. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lohr (3,711,115) in view of Kirchoff et al. (3,972,545).

Lohr discloses a method of inflating an airbag comprising the steps of igniting a gas generant (13, 15) to form combustion products (34); humidifying the combustion products to form humidified combustion products (40; see column 7, lines 60-65; column 10, lines 14-24); and routing the products to the airbag (60)

Lohr fails to show filtering the combustion products.

Kirchoff teaches igniting a gas generant (18; column 2, lines 59-64) and filtering the combustion products (22, 24; column 3, lines 9-20) prior to other treatment (26, etc.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lohr with the teachings of Kirchoff to filter the combustion products in order to prevent clogging of the humidifying chamber.

Regarding claims 4 and 5, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Lohr and Kirchoff to have any desired ration of moles of water per mole of gas generant, such as 1.0 in order to provide an optimal amount of hydration to cool the combustion gases.

Regarding claim 6, the humidified filtered combustion products would inherently lubricate the airbag opening and a portion of an interior of the airbag, thereby reducing resistance of the airbag to inflation and correspondingly reducing the amount of pressure required to inflate the airbag.

Response to Arguments

8. Applicant's arguments filed July 7, 2005 and January 9, 2006 have been fully considered but they are not persuasive.

In the Arguments filed July 7, 2005, Applicant argues that Schwuchow does not show the combustion products being filtered prior to humidifying. Applicant argues that reference number 10 is not a filter, but rather a "brennkammerfiltersieb, or a combustion chamber sieve or separator." Although Applicant does not state where how this determination was made, it

appears that Applicant is relying on the use of “filtersieb” in the claims of the Patent. However, through the specification, the Patent refers to element 10 as a filter. It is not clear why, but Schwuchow refers to both elements 10 and 110 in the claims as “breenkammerfiltersieb”. It is noted that element 110 is never referenced in the specification. In the specification, element 10 is only referenced as “Brennkammerfilter” or combustion chamber filter. It is submitted that one of ordinary skill in the art would determine that element 10 of Figure 1 would be a filter.

Further, it is noted “filtersieb” is defined by Prof. Dr. Dipl. -Ing Gerhard Wenske in his German-English Chemistry Dictionary (ISBN 6-89573-527-X) as “FILTERING SCREEN” or “FILTERING SIEVE”, and by DeVries’ Dictionary as “filter screen” or “gauze filter”, and therefore it is understood that “filtersieb” implies the use of filtering.

In the response of July, 2005 and in the Appeal Brief, Applicant argues the rejection of the combination of Lohr and Kirchoff. Applicant argues that there is no suggestion or motivation to combine the references. In response, it is submitted that the motivation to combine the teachings of the references would be found in the knowledge available to one of ordinary skill in the art. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969). In this case, it is maintained that Kirchoff et al. would have suggested to one of ordinary skill in the art to provide a filter in the gas generator of Lohr to remove particulates in the gas. In addition, Kirchoff et al. would have suggested to add the filter before any treatment of the gas stream.

Art Unit: 3616

Applicant argues each of the references individually, noting that Lohr does not disclose filtration, and Kirchoff does not disclose the addition of water. However, it is the sum total of the relevant teaching of the references which renders the modifications obvious; and it is maintained that Kirchoff would have suggested to one of ordinary skill in the art to modify the gas generator of Lohr to filter the gas before the gas was treated by the humidification.

Conclusion

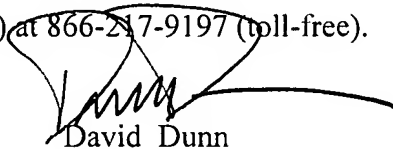
9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 703-305-0049. The examiner can normally be reached on Mon-Thur, alt. Fridays, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Dunn
Primary Examiner
Art Unit 3616